

## REMARKS

Claims 55-57, 61, 72-74 and 76-81 have been canceled and new claims 82-107 submitted.

Claims 40, 71 and 75 have been amended to require the infectious agent be selected from a specific group of feline viruses. Support for such agents can be found in the specification, for example, on page 12, lines 14-19.

Claims 63-68 have been amended to remove molecules and sequences not relating to feline calicivirus, feline herpesvirus, feline parvovirus or feline leukemia virus.

Claim 70 has been amended to specify the biological specimen is contacted with antigens from several, specific infectious agents. Similarly new claims 98, 106 and 107 state the biological specimen is contacted with antigens from several, specific infectious agents. Support for these claims can be found in the original claims (e.g., claim 23) and in the specification, for example, on page 38, lines 3-4 and on page 40, lines 12-14.

New claims 82-85, 92, 95 and 102 specify the antigen used in the claimed method be at least 85% identical to specific SEQ ID NO's. Support for these claims can be found in the specification, for example, on page 14, lines 16-21, through page 15, lines 1-2.

New claims 86-89, 95 and 104 specify the antigen used in the claimed method be encoded by a nucleic acid molecule at least 85% identical to specific SEQ ID NO's. Support for these claims can be found in the specification, for example, on page 18, lines 5-13.

New claims 92 and 101 specify the antigen used in the claimed method be a particular protein. Support for these claims can be found in the specification, for example, on page 12, lines 9-21, through page 13, lines 1-6.

Accordingly, Applicants submit no new matter has been entered into the application.

### I. Restriction Requirement

Applicants have elected to prosecute Group I for further prosecution. Group I, drawn to a method to determine the immune status of an animal, includes claims 40-75. Proteins of Group I claims include SEQ ID NO: 2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, SEQ ID NO:24, SEQ ID NO:26, SEQ ID NO:28, SEQ ID NO:30, and SEQ ID NO:32. Nucleic acid molecules encoding proteins of Group I claims include SEQ ID NO:1,

SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, SEQ ID NO:27, SEQ ID NO:29, and SEQ ID NO:31.

## II. Sequence Election

The Examiner has stated that each SEQ ID NO is a unique and separately patentable sequence and therefore, Applicants are required to elect a single SEQ ID NO for prosecution. Applicants have provisionally elected SEQ ID NO:22, with traverse for the following reasons.

The Examiner has stated that inventions (e.g., SEQ ID NO's) are unrelated if it can be shown that they are not disclosed as capable of being used together. Applicants note that the SEQ ID NO's listed in the claims have been disclosed as capable of being used together. Applicants are not claiming the individual proteins represented by the specific SEQ ID NO's. Rather, Applicants are claiming a method of determining the immune status of an animal, the method using one or more proteins represented by the listed SEQ ID NO's. In particular, claims 69, 97 and 106, and 70, 98 and 107 are drawn to methods in which the biological specimen is contacted with antigens from three or four, respectively, separate feline viruses. The choice of viruses, and hence antigens, is based on current vaccine methodology which uses a single vaccine containing immunogens from each of these viruses, and which therefore protects against all of these viruses. Thus, one aspect of Applicants invention is a single test which will determine the need to immunize an animal against infection by any of the viruses to which the currently used multi-immunogen vaccine provides protection. Applicants therefore contend this aspect of the instant invention shows how the separate proteins represented by the disclosed SEQ ID NO's can be used together in a single invention, in a meaningful way.

Furthermore, while the claims do list several SEQ ID NO's, Applicants note that several of the SEQ ID NO's completely overlap with other SEQ ID NO's. For example, SEQ ID NO:4 is a truncated version of SEQ ID NO:2. The following chart illustrates the relationships between the SEQ ID NO's disclosed in the claims:

### **Feline Calicivirus coat protein**

SEQ ID NO:1	nFCVCP <sub>2013</sub>	full-length
SEQ ID NO:2	PFCVCP <sub>671</sub>	
SEQ ID NO:3	nFCVCP <sub>1641</sub>	mature
SEQ ID NO:4	PFCVCP <sub>547</sub>	

### **Feline Parvovirus VP2**

SEQ ID NO:5	nFPVVP2 <sub>1752</sub>	full-length
SEQ ID NO:6	PFPVVP2 <sub>584</sub>	
SEQ ID NO:7	nFPVVP2C <sub>729</sub>	truncated
SEQ ID NO:8	PFPVVP2C <sub>243</sub>	
SEQ ID NO:11	nFPVpVP2 <sub>1431</sub>	truncated (start at 5' of #5; end at 3' of #7)
SEQ ID NO:12	PFPVpVP2 <sub>477</sub>	

### **Feline Herpesvirus**

#### **gB**

SEQ ID NO:13	nFHVgB <sub>2829</sub>	full-length
SEQ ID NO:14	PFHVgB <sub>943</sub>	
SEQ ID NO:15	nFHVgB <sub>750</sub>	truncated
SEQ ID NO:16	PFHVgB <sub>250</sub>	

#### **gC**

SEQ ID NO:17	nFHVgC <sub>1602</sub>	full-length
SEQ ID NO:18	PFHVgC <sub>534</sub>	
SEQ ID NO:19	nFHVgC <sub>1401</sub>	truncated
SEQ ID NO:20	PFHVgC <sub>467</sub>	
SEQ ID NO:21	nFHVgC <sub>1401(opt)</sub>	codon-optimized truncated gC
SEQ ID NO:22	PFHVgC <sub>467(opt)</sub>	

#### **gD**

SEQ ID NO:23	nFHVgD <sub>1122</sub>	full-length
SEQ ID NO:24	PFHVgD <sub>374</sub>	
SEQ ID NO:25	nFHVgD <sub>900</sub>	truncated
SEQ ID NO:26	PFHVgD <sub>300</sub>	

### **FeLV p27**

SEQ ID NO:27	nFeLVp27 <sub>789</sub>	mature
SEQ ID NO:28	PFeLVp27 <sub>263</sub>	
SEQ ID NO:29	nFeLVgp70 <sub>1830</sub>	full-length
SEQ ID NO:30	PFeLVgp70 <sub>610</sub>	
SEQ ID NO:31	nFeLVp27-gp70 <sub>1836</sub>	Pr65-gag/gp70 fusion
SEQ ID NO:32	PFeLVp27-gp70 <sub>612</sub>	

Applicants have included alignments of the protein sequences at the end of this response which clearly illustrate the relationship between overlapping sequences. In view of the overlapping nature of these sequences, Applicants contend that not all of the sequences would need to be searched and therefore no undue burden on the Examiner exists. For example, a search of the prior art for SEQ ID NO:4 would suffice for SEQ ID NO's 1-4. Similarly, a search of the prior art for SEQ ID NO:8 would suffice for SEQ ID NO's 5-12. In fact, Applicants contend the Examiner only need search the prior art for SEQ ID NO's 4, 8, 16, 20, 26, 28 and 30.

In view of the above, Applicants request the Examiner withdraw the sequence election requirement and examine the instantly submitted claim set.

### **III. Species Election**

The Examiner is requiring Applicants to elect one species of recombinant antigen for prosecution stating the species are distinct since their sequences, structures, modes of action, etiologies, etc. are different and therefore each antigen represents a patently distinct subject matter. Applicants have provisionally elected to prosecute a herpesvirus protein, with traverse for the following reasons.

The Examiner is referred to section II of this response. As noted above, one aspect of the present invention is a test capable of determining the immune status of an animal to several different viruses, all of which are protected against by vaccination with a single vaccine. In order to determine the immune status to more than one virus, and consequently to determine the need for the multi-immunogenic vaccine, the claimed method must make use of more than one

antigen (see, for example, claims 69 and 70). Limiting the method to a single antigen makes it useless for determining the need for the commonly used, multi-immunogenic vaccine.

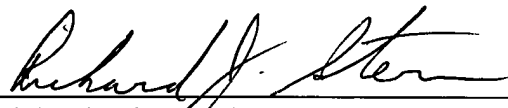
Furthermore, with regard to election of a single species of time, as exemplified by claims 71-74, Applicants note that claims 72-74 have been canceled, obviating this requirement. Therefore, in view of the above, Applicants request the Examiner withdraw the species election requirement and examine the instantly submitted claim set.

#### CONCLUSION

All of the pending Claims are believed to be in condition for allowance. In the event the Examiner has any questions regarding this Application, the Examiner is invited to contact the undersigned representative at (970) 493-7272, ext. 4174.

Respectfully submitted,

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Alignment of SIN2 & SIN4 from DI-9

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SIN2 mcstcanvlk yydwdfhfk1 vinpnnflsv gfcsnplmcc ypellpefgt
SIN4 .....

SIN2 vwcdcrsple iylesilgdd ewastfdavd pvvppmhwga agkifqphpg
SIN4 .....

SIN2 vlmhhligkv aagwdpdlpl irleADDGSI TAPEQGTMTVG GVIAEPSAQM
SIN4 .....ADDGSI TAPEQGTMTVG GVIAEPSAQM

SIN2 STAADMATGK SVDSEWEAFF SFHTSVNWST SETQGKILFK QSLGPLLNPY
SIN4 STAADMATGK SVDSEWEAFF SFHTSVNWST SETQGKILFK QSLGPLLNPY

SIN2 LEHLAKLYVA WSGSIEVRFS ISGSGVFGGK LAAIVVPPGV DPVQSTSMLO
SIN4 LEHLAKLYVA WSGSIEVRFS ISGSGVFGGK LAAIVVPPGV DPVQSTSMLO

SIN2 YPHVLFDARQ VEPVIFCLPD LRSTLYHLMS DTDTTSLVIM VYNDLINPYA
SIN4 YPHVLFDARQ VEPVIFCLPD LRSTLYHLMS DTDTTSLVIM VYNDLINPYA

SIN2 NDANSSGCIV TVETKPGPDF KFHLKPPGS MLTHGSIPSD LIPKTSSLWI
SIN4 NDANSSGCIV TVETKPGPDF KFHLKPPGS MLTHGSIPSD LIPKTSSLWI

SIN2 GNRYWSDITD FVIRPFVFQA NRHFDNFQET AGWSTPRFRP ISVTITEQNG
SIN4 GNRYWSDITD FVIRPFVFQA NRHFDNFQET AGWSTPRFRP ISVTITEQNG

SIN2 AKLGIGVATD YIVPGIPDGW PDDTIPGELI PAGDYAITNG TGNDITTATG
SIN4 AKLGIGVATD YIVPGIPDGW PDDTIPGELI PAGDYAITNG TGNDITTATG

SIN2 YDTADIIKNN TNFRGMYICG SLQRAWGDKK ISNTAFITTA TLDGDNNNKI
SIN4 YDTADIIKNN TNFRGMYICG SLQRAWGDKK ISNTAFITTA TLDGDNNNKI

SIN2 NPCNTIDQSK IVVFQDNHVG KKAQTSDDTL ALLGYTGIGE QAIGSDRDRV
SIN4 NPCNTIDQSK IVVFQDNHVG KKAQTSDDTL ALLGYTGIGE QAIGSDRDRV

SIN2 VRISTLPETG ARGGNHPIFY KNSIKLGYVI RSIDVFNSQI LHTSRQLSLN
SIN4 VRISTLPETG ARGGNHPIFY KNSIKLGYVI RSIDVFNSQI LHTSRQLSLN

SIN2 HYLLPPDSFA VYRIIDSNGS WFDIGIDSDG FSFVGVSFGF KLEFPLSASY
SIN4 HYLLPPDSFA VYRIIDSNGS WFDIGIDSDG FSFVGVSFGF KLEFPLSASY

SIN2 MGIQLAKIRL ASNIRSPMTK L
SIN4 MGIQLAKIRL ASNIRSPMTK L

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Alignment of SIN6, SIN8 and SIN12 from DI-9

SIN6	MSDGA	VQPDG	GQPA	VRNERA	TGSG	NGSGGG	GGGG	SGGVGI	STGT	FNNQTE
SIN8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SIN12	MSDGA	VQPDG	GQPA	VRNERA	TGSG	NGSGGG	GGGG	SGGVGI	STGT	FNNQTE
SIN6	FKFLE	NGWVE	ITAN	SSRLVH	LNMPE	SENYK	RVVV	NNMDKT	AVKG	NMALDD
SIN8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SIN12	FKFLE	NGWVE	ITAN	SSRLVH	LNMPE	SENYK	RVVV	NNMDKT	AVKG	NMALDD
SIN6	IHVQI	VTPTS	LVDAN	AWGVW	FNPGD	WQLIV	NTMSE	LHLVS	FEQE	IFNVVL
SIN8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SIN12	THVQI	VTPTS	LVDAN	AWGVW	FNPGD	WQLIV	NTMSE	LHLVS	FEQE	IFNVVL
SIN6	KTVSE	SATQP	PTKVY	NNDLT	ASLMV	ALDSN	NTMPF	TPAAM	RSETL	GFYPW
SIN8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SIN12	KTVSE	SATQP	PTKVY	NNDLT	ASLMV	ALDSN	NTMPF	TPAAM	RSETL	GFYPW
SIN6	KPTIPT	PWRY	YFQWD	RTRLIP	SHTGT	SGTPT	NVYHG	TDPPD	VQFY	TIENSV
SIN8	.....	.....	.....	.....	.....	.....	....	.GTD	PDD	VQFY
SIN12	KPTIPT	PWRY	YFQWD	RTRLIP	SHTGT	SGTPT	NIYHG	TDPPD	VQFY	TIENSV
SIN6	PVHLL	RTGDE	FATGT	FFFFDC	KPCRL	THTWQ	TNRAL	GLPPF	LNSLP	QSEGA
SIN8	PVHLL	RTGDE	FATGT	FFFFDC	KPCRL	THTWQ	TNRAL	GLPPF	LNSLP	QSEGA
SIN12	PVHLL	RTGDE	FATGT	FFFFDC	KPCRL	THTWQ	TNRAL	GLPPF	LNSLP	QSEGA
SIN6	TNFGD	IGVQQ	DKRRG	VQTQMG	NTDYI	ITEATI	MRPAE	VGYS	PYYS	FEASTQ
SIN8	TNFGD	IGVQQ	DKRRG	VQTQMG	NTDYI	ITEATI	MRPAE	VGYS	PYYS	FEASTQ
SIN12	TNFGD	IGVQQ	DKRRG	VQTQMG	NTDYI	ITEATI	MRPAE	VGYS	PYYS	FEASTQ
SIN6	GPFKT	PIAAG	RGGAQ	TDENQ	AADGD	PRYAF	GRQHG	QKTTT	TGET	PERFTY
SIN8	GPFKT	PIAAG	RGGAQ	TDENQ	AADGD	PRYAF	GRQHG	QKTTT	TGET	PERFTY
SIN12	GPFKI	PIAAG	RGGAQ	TDENQ	AADGD	PRYAF	GRQHG	QKTTT	TGET	PERFTY
SIN6	IAHQD	TGRYP	EGDWI	QININF	NLPVT	TNDNVL	LPTDP	IGGKT	GINYT	NIFNT
SIN8	IAHQD	TGRYP	EGDWI	QININF	NLPVT	TNDNVL	LPTDP	IGGKT	GINYT	NIFNT
SIN12	IAHQD	TGRYP	AGDWI	QININF	NLPVT	TNDNVL	LPTDP	IGGKT	GINYT	NIFNT
SIN6	YGPLT	ALNNV	PPVYP	NGQIW	DKEFD	TDlkp	rlhvn	apfvc	qnn	cpqqlfv
SIN8	YGPLT	ALNNV	PPVYP	NGQIW	DKEFD	TD...	.....	.....	.....	.....
SIN12	YGPLT	ALNNV	PPVYP	NGQIW	DKEFD	TD...	.....	.....	.....	.....
SIN6	kvapn	ltney	dpdas	anmsr	ivtys	dfwwk	gklvf	kaklr	ashtw	npiqq
SIN8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SIN12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
SIN6	msinv	dnqfn	yvpnn	nigamk	ivyek	sqliap	rkly			
SIN8	.....	.....	.....	.....	.....	.....	.....			
SIN12	.....	.....	.....	.....	.....	.....	.....			

# Alignment of SEQ ID NO's 14 & 16 from DI-9

SIN14	MSTRGDLGKR	RRGSRWQGHS	GYFRQRCFFP	SLLGIAATGS	RHGNGSSGLT
SIN16	MSTRGDLGKR	RRGSRWQGHS	GYFRQRCFFP	SLLGIAATGS	RHGNGSSGLT
SIN14	RLARYVSFIW	IVLFLVGPRP	VEGQSGSTSE	QPRRTVATPE	VGVHHQNQLQ
SIN16	RLARYVSFIW	IVLFLVGPRP	VEGQSGSTSE	QPRRTVATPE	VGVHHQNQLQ
SIN14	IPPICRYEEA	LRASQIEANG	PSTFYMCPPP	SGSTVVRLEP	PRACPDYKLG
SIN16	IPPICRYEEA	LRASQIEANG	PSTFYMCPPP	SGSTVVRLEP	PRACPDYKLG
SIN14	KNFTEGIAVI	FKENIAPYKF	KANIYYKNII	MTTVWSGSSY	AVTTNRYTDR
SIN16	KNFTEGIAVI	FKENIAPYKF	KANIYYKNII	MTTVWSGSSY	AVTTNRYTDR
SIN14	VPVKVQEITD	LIDRRGMCLS	KADYVRNNYQ	FTAFDRDEDP	RELPLKPPSS
SIN16	VPVKVQEITD	LIDRRGMCLS	KADYVRNNYQ	FTAFDRDEDP	RELPLKPPSS
SIN14	tlsrvrgwht	netytkivll	dfhhsqtsvn	civeevdars	vypydsfais
SIN16	.....	.....	.....	.....	.....
SIN14	tgdvihmspf	fglrdgahve	htsyssdrfq	qiegyypidl	dt dytgapvs
SIN16	.....	.....	.....	.....	.....
SIN14	rnfletphvt	vawnwtpksg	rvctlakwre	idemlpmnig	syrftaktis
SIN16	.....	.....	.....	.....	.....
SIN14	atfisntsqr	einrirlgdc	atkeaaeaid	riykskyskt	hiqgtgtlety
SIN16	.....	.....	.....	.....	.....
SIN14	larggfliaf	rpmisnelak	lyinelarsn	rtvvdlsall	npsgetvqrt
SIN16	.....	.....	.....	.....	.....
SIN14	rrsvpsnqhh	rsrrstiegg	ietvnnsall	kttssvefam	lqfaydyiga
SIN16	.....	.....	.....	.....	.....
SIN14	hvnemlsria	tawctlqnre	hvlwtetlkl	npggvvsmal	errvsarllg
SIN16	.....	.....	.....	.....	.....
SIN14	davavtqcvn	issghvyiqn	smrvtgsstt	cysrplvsfr	alndseyieg
SIN16	.....	.....	.....	.....	.....
SIN14	qlgennellv	erkliepctv	nnkryfkfga	dyvyfedyay	vrkvplseie
SIN16	.....	.....	.....	.....	.....
SIN14	lisayvikst	lledreflhs	sytraeledt	gpfdyseiqr	rnqlhalkfy
SIN16	.....	.....	.....	.....	.....



SIN14 didsivrvidn nlvimrgman ffqglgdvga gfgkvvlga savistvsgv  
SIN16 .....

SIN14 ssflnnpfga lavgllilag ivaafalayry isrlranpmk alypvttrnl  
SIN16 .....

SIN14 kqtakspast aggdsgpgvd dfdeeklmqa remikymstv sameqqehka  
SIN16 .....

SIN14 mkknkgpail tshltnmalr rrgpkyqrln nldsgddtet nlv  
SIN16 .....

# Alignment of SIN18, SIN20 and SIN22 from DI-9

```

SIN18 mrrryrmgrgi yllyiclllyt ylfqfgtsstt avSIENSDNS TAEMLSSTSM
SIN20 ..... ..SIENSDNS TAEMLSSTSM
SIN22 m..... ..SIENSDNS TAEMLSSTSM

SIN18 SATTPISQPT SPFTTPTRRS TNIATSSSSTT QASQPTSTLT TLTRSSTTIA
SIN20 SATTPISQPT SPFTTPTRRS TNIATSSSSTT QASQPTSTLT TLTRSSTTIA
SIN22 SATTPISQPT SPFTTPTRRS TNIATSSSSTT QASQPTSTLT TLTRSSTTIA

SIN18 TSPSTTQAAT FIGSSTDSENT TLLKTTKKPK RKKNKNNGAR FKLYCGYKGV
SIN20 TSPSTTQAAT FIGSSTDSENT TLLKTTKKPK RKKNKNNGAR FKLYCGYKGV
SIN22 TSPSTTQAAT FIGSSTDSENT TLLKTTKKPK RKKNKNNGAR FKLdCGYKGV

SIN18 IYRPYFSPLO LNCTLPTEPH ITNPIDFEIW FKPRTFRGDF LGDKEDFVGN
SIN20 IYRPYFSPLO LNCTLPTEPH ITNPIDFEIW FKPRTFRGDF LGDKEDFVGN
SIN22 IYRPYFSPLO LNCTLPTEPH ITNPIDFEIW FKPRTFRGDF LGDKEDFVGN

SIN18 HTRTSILLFS SRNGSVNSMD LGDATLGILQ SRIPDYTLYN IPIQTEAMS
SIN20 HTRTSILLFS SRNGSVNSMD LGDATLGILQ SRIPDYTLYN IPIQTEAMS
SIN22 HTRTSILLFS SRNGSVNSMD LGDATLGILQ SRIPDYTLYN IPIQTEAMS

SIN18 LGIKSSESAT SGVYTWVRYG GDVLNKTVLG QVNVSVVAYH PPSVNLTPRA
SIN20 LGIKSSESAT SGVYTWVRYG GDVLNKTVLG QVNVSVVAYH PPSVNLTPRA
SIN22 LGIKSSESAT SGVYTWVRYG GDGLNKTVLG QVNVSVVAYH PPSVNLTPRA

SIN18 SLFNKTFEAV CAVANYFPPR STKLTWYLDG KPIERQYISD TASVWIDGLI
SIN20 SLFNKTFEAV CAVANYFPPR STKLTWYLDG KPIERQYISD TASVWIDGLI
SIN22 SLFNKTFEAV CAVANYFPPR STKLTWYLDG KPIERQYISD TASVWIDGLI

SIN18 TRSSVLAIPT TETDSEKPD I RCDLEWHESP VSYKRFTKSV APDVYYPPTV
SIN20 TRSSVLAIPT TETDSEKPD I RCDLEWHESP VSYKRFTKSV APDVYYPPTV
SIN22 TRSSVLAIPT TETDSEKPD I RCDLEWHESP VSYKRFTKSV APDVYYPPTV

SIN18 SVTFADTRAI CDVKCVPRDG ISLMWKIGNY HLPKAMSADI LITGPCIERP
SIN20 SVTFADTRAI CDVKCVPRDG ISLMWKIGNY HLPKAMSADI LITGPCIERP
SIN22 SVTFADTRAI CDVKCVPRDG ISLMWKIGNY HLPKAMSADI LITGPCIERP

SIN18 GLVNIQSMCD ISETDGPVSY TCQTIGYPPI LPGFYDTQVY DASPEIVSEs
SIN20 GLVNIQSMCD ISETDGPVSY TCQTIGYPPI LPGFYDTQVY DASPEIVSE.
SIN22 GLVNIQSMCD ISETDGPVSY TCQTIGYPPI LPGFYDTQVY DASPEIVS..

SIN18 mlvsvvavil gavlitvfif italcllysh prrl
SIN20 .....
SIN22 .....

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# Alignment of SEQ ID NO's 24 & 26 from DI-9

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SIN24 mmtrlhfwwc gifavlkylv ctsslthttPK TTTVYVKGFN IPPLRYNYTQ
SIN26 .....PK TTTVYVKGFN IPPLRYNYTQ

SIN24 ARIVPKIPQA MDPKITAIEVR YVTSMDSCGM VALISEPDID ATIRTIQLSQ
SIN26 ARIVPKIPQA MDPKITAIEVR YVTSMDSCGM VALISEPDID ATIRTIQLSQ

SIN24 KKTYNATISW FKVTQGCEYP MFLMDMRLCD PKREFGICAL RSPSYWLEPL
SIN26 KKTYNATISW FKVTQGCEYP MFLMDMRLCD PKREFGICAL RSPSYWLEPL

SIN24 TKYMFLTDDE LGLIMMAPAQ FNQGQYRRVI TIDGSMFYTD FMVQLSPTPC
SIN26 TKYMFLTDDE LGLIMMAPAQ FNQGQYRRVI TIDGSMFYTD FMVQLSPTPC

SIN24 WFAKPDYEE ILHEWCRNVK TIGLDGARDY HYYWVPYNPQ PHHKAVLLYW
SIN26 WFAKPDYEE ILHEWCRNVK TIGLDGARDY HYYWVPYNPQ PHHKAVLLYW

SIN24 YRTHGREPPV RFQEAIYDR PAIPSGSEDS KRSNDSRGES SGPNWIDIEN
SIN26 YRTHGREPPV RFQEAIYDR PAIPSGSEDS KRSNDSRGES SGPNWIDIEN

SIN24 YTPKNNVPII ISDDDVPTAP PKGMNNQsvv ipaivlscli ialilgviyy
SIN26 YTPKNNVPII ISDDDVPTAP PKGMNNQS.. .....

SIN24 ilrvkrsrst ayqqlpiht thhp
SIN26 .....

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